

### REMARKS

This Application has been reviewed in light of the Office Action mailed May 13, 2004. Claims 1 and 9 have been amended to clarify, more particularly point out, and more distinctly claim inventive concepts previously present in these claims. In order to advance prosecution of this Application, Applicant has responded to each notation by the Examiner. Applicant respectfully requests reconsideration and favorable action in this case.

#### Section 102 rejections.

The Examiner rejects Claims 1, 3, 4, 6, and 8 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,901,253 to Tretter ("*Tretter*"). Applicant respectfully submits that *Tretter* fails to disclose, teach, or suggest the combination of limitations specifically recited in Applicant's claims 1, 3, 4, 6, and 8.

For example, *Tretter* fails to disclose, teach, or suggest "identifying at least one vertical or horizontal objects within said image using only a plurality of image pixels", as recited by Applicant's independent claim 1, as amended. Specifically, *Tretter* states:

The skew detection and image cropping program 202 detects the skew angle and boundary information of a document image within a scan image by locating the first and last pixels of each scan line of the document image inside the scan image. The skew detection and image cropping program 202 does this by comparing each scan line of pixels in the scan image with a predetermined scan line of *background pixels* to locate the first and last document *image pixels*.

*Tretter*, Column 6, Lines 30-38 (emphasis added). That is, *Tretter* uses both background pixels and image pixels to determine the first and last pixels of each scan line, but does not use only image pixels as recited by Applicant's claim 1 as amended. Therefore, *Tretter* fails to disclose, teach, or suggest, "identifying at least one vertical or horizontal objects within said image using only a plurality of image pixels", as recited in Applicant's independent claim 1 as amended. Consequently, at a minimum, *Tretter* fails to disclose, teach, or suggest the combination of limitations recited in Applicant's independent claim 1. For at least this reason, *Tretter* also fails to disclose, teach, or suggest the limitations recited in dependent claims 3, 4, 6, and 8 because of their dependence on independent claim 1 and further because they recite numerous patentable distinctions over the cited references. Applicant therefore respectfully requests that the Examiner withdraw the rejection to claims 1, 3, 4, 6, and 8.

The Examiner rejects Claims 9 and 10 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,185,667 to *Zimmermann* (“*Zimmermann*”). Applicant respectfully submits that *Zimmermann* fails to disclose, teach, or suggest the combination of limitations specifically recited in Applicant’s claims 9 and 10.

For example, *Zimmermann* fails to disclose, teach, or suggest “a tilt determining mechanism configured to autonomously sense orientation errors of received images”, as recited in Applicant’s independent claim 9, as amended. First, Applicant is not clear which portion in *Zimmermann* the Examiner argues as teaching Applicant’s tilt determining mechanism. The Examiner seems to be arguing in this Office Action that *Zimmermann*’s input means teach Applicant’s user-selectable input device, while also arguing that the input means teach Applicant’s tilt determining mechanism. The Examiner also seems to be arguing that *Zimmermann*’s microcomputer and control interface 5 teaches both Applicant’s tilt determining mechanism and Applicant’s processor. (Office Action, page 3, paragraph 3). To the extent that each of the limitations in claim 9 must be shown as being anticipated in order for the Examiner to retain this rejection, Applicant respectfully requests that the Examiner expressly point to a particular and different structure in *Zimmermann* for each claimed element of Applicant’s claims. To the extent that the Examiner cannot do so, Applicant respectfully requests that the Examiner withdraw this rejection to claims 9 and 10.

Assuming for argument’s sake that the Examiner argues *Zimmermann*’s microcomputer and control interface 5 teaches Applicant’s tilt determining mechanism, Applicant respectfully disagrees. In the very passage that the Examiner cites in the Office Action, *Zimmermann*’s microcomputer and control interface 5 is described as follows, “The control interface also determines the desired transformation coefficients based on orientation angle, magnification, rotation, and light sensitivity input from an input means such as a joystick controller 12 or computer input means 13.” (*Zimmermann*, Column 3, Lines 39-43) (emphasis added). *Zimmermann* further states, “The input means defines the zenith angle,  $\beta$ , the azimuth angle,  $\delta$ , the object rotation,  $\phi$ , and the magnification,  $m$ . These values are substituted into Equations 19 to determine values for substitution in Equations 17 and 18.” (*Zimmermann*, Column 8, Lines 5-7).

That is, *Zimmermann*’s microcomputer and control interface 5 receives an orientation angle from an input means to, at most, calculate transformation coefficients, but does not

autonomously sense orientation errors of received images. In fact, neither the input means nor the microcomputer and control interface 5 of *Zimmermann* teaches, discloses, or suggests being “configured to autonomously sense orientation errors of received images”, as recited in Applicant’s independent claim 9 as amended. Consequently, at a minimum, *Zimmermann* fails to disclose, teach, or suggest the combination of limitations recited in Applicant’s independent claim 9. For at least this reason, *Zimmermann* also fails to disclose, teach, or suggest the limitations recited in dependent claim 10 because of its dependence on independent claim 9 and further because it recites numerous patentable distinctions over the cited references. Applicant therefore respectfully requests that the Examiner withdraw the rejection to claims 9 and 10.

Section 103 rejections.

The Examiner rejects claims 11, and 12-15 under 35 U.S.C. § 103(a) as being unpatentable over *Zimmermann* in view of Sharp “GP1S36 Tilt Detecting Photointerrupter” (“*Sharp*”). Applicant respectfully traverses this rejection for the reasons that follow.

*Zimmermann* teaches away from the combination with *Sharp*. The Examiner argues that, “*Zimmermann* does not teach details on a tilt sensor. Sharp teaches a tilt sensor which can be used in digital camera or camcorder.” (Office Action, page 4, paragraph 3). The Examiner further argues that, to increase *Zimmermann*’s efficiency and reliability, it would be obvious to one of ordinary skill in the art to combine the tilt sensor of *Sharp* with *Zimmermann*. *Id.* However, *Zimmermann* states very clearly, “It is another object of the present invention to be able to accomplish said pan, *tilt*, zoom, rotation, and iris with *simple inputs made by a lay person* from a joystick, keyboard controller, or computer controlled means.” (*Zimmermann*, Column 2, Lines 15-18) (emphasis added).

That is, *Zimmermann* teaches away from incorporating *Sharp*’s tilt sensor because *Zimmermann* is directed to manual inputs, e.g. inputs *made by a lay person*. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. MPEP § 2141.04, *W.L. Gore & Associates, Inc., v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert denied*, 469 U.S. 851 (1984). Accordingly, the combination of *Zimmermann* and *Sharp* is not proper and therefore

Applicant respectfully requests that the Examiner withdraw this rejection to claims 11, and 12-15.

The Examiner rejects claims 2, 5, 16-20 under 35 U.S.C. § 103(a) as being unpatentable over *Tretter* in view of *Zimmermann*. Applicant respectfully traverses this rejection for the reasons that follow.

With respect to claims 2 and 16, the Examiner argues that it would be "obvious to one of ordinary skill in the art to incorporate old and well-known image orientation correction technique into image captured by a digital camera because regardless of whether image is obtained by conventional optical camera or digital camera, both still require all the orientation distortion, including tilt and rotation." (Office Action, page 5, paragraph 4 – page 6, paragraph 1). Applicant respectfully disagrees with the Examiner's characterization because there is no motivation to combine *Tretter* and *Zimmermann*. Neither *Tretter* nor *Zimmermann* expressly indicates any motivation to combine.

If the Examiner is relying on "common knowledge" or "well known" art in support of his rationale for combining the references, the Examiner is requested to produce a reference in support of his position pursuant to M.P.E.P. § 2144.03. If the Examiner is relying on personal knowledge to supply the required motivation or suggestion to combine, Applicants respectfully request that the Examiner produce an affidavit supporting such facts pursuant to M.P.E.P. § 2144.03. "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence" of a suggestion or motivation to combine references. *Dembiczak*, 175 F.3d at 999. Applicant respectfully requests that this rejection be withdrawn, or to the extent the rejection is continued by the Examiner, that the Examiner provide support for such a rejection by reference to the art.

In rejecting the present claims as obvious over the prior art, the Examiner should present evidence that suggests or motivates the modification, as is required by Federal Circuit case law. See e.g., *In re Fritch*, 972 F.2d 1260, 1265 (Fed. Cir. 1992); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297 (Fed. Cir. 1985). Evidence of teaching or suggestion of the combination of prior art references to achieve the claimed invention is "essential" to avoid hindsight. *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988).

With respect to claims 5, 18, and 19, the Examiner blankly states that it would have been “obvious to one of ordinary skill in the art to incorporate compression algorithm into digital image processing technique.” (Office Action, page 6, paragraph 3). Applicant respectfully disagrees with the Examiner’s characterization. Neither *Tretter* nor *Zimmermann* discloses an “image compressor”, as recited in Applicant’s claims 18 and 19. In fact, to the extent that *Tretter* and *Zimmermann* are silent as to performing any type of compression, this rejection is improper. Merely stating that the cited references may be modified to meet the claimed invention because compressing data would have been known to one of ordinary skill in the art is not sufficient to establish a *prima facie* case of obviousness. See M.P.E.P. § 2143.01. Applicant respectfully requests that the Examiner withdraw this rejection or provide an affidavit in support of these facts as required by the Section 2144.03 of the M.P.E.P.

Additionally, particularly with respect to claim 16, and for similar reasons as previously stated, *Tretter*, whether alone or in combination with *Zimmermann*, fails to disclose, teach, or suggest “an orientation sensor autonomously identifying an orientation of said image sensor with respect to said image captured by said image sensor”, as recited in Applicant’s independent claim 16 as amended. Consequently, *Tretter*, whether alone or in combination with *Zimmermann*, fails to disclose, teach, or suggest the combination of limitations recited in Applicant’s independent claim 16 as amended and therefore Applicant respectfully requests that the Examiner withdraw the rejection to claims 16 – 20.

The Examiner rejects claim 7 under 35 U.S.C. § 103(a) as being unpatentable over *Tretter* in view of *Sharp*. Applicant respectfully traverses this rejection for the reason that, at a minimum, there is no motivation to combine *Tretter* with *Sharp*. In fact, it makes no sense to combine *Tretter* with a tilt sensor, such as that disclosed by *Sharp*. *Tretter* is directed to image adjustment by determining (using software) a skew angle using background pixels, image pixels, and scan lines, while *Sharp* is a hardware tilt sensor. Consequently, it is not proper to combine *Tretter* and *Sharp* and therefore Applicant respectfully requests that the Examiner withdraw this rejection.

Applicant respectfully requests reconsideration and allowance of independent Claims 1, 9, and 16, and all claims that depend on these claims.

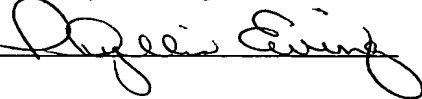
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 10005753-1 from which the undersigned is authorized to draw.

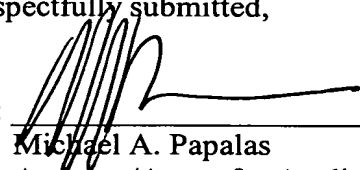
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Date of Deposit: July 22, 2004

Typed Name: Phyllis Ewing

Signature: 

Respectfully submitted,

By:   
Michael A. Papalas  
Attorney/Agent for Applicant(s)  
Reg. No. 40,381  
Date: July 22, 2004  
Telephone No. (214) 855-8186